



Attachment 10 consists of the following items:

- ✓ **Cost and Benefits Summary.** This attachment contains a summary of the costs and benefits associated with this grant proposal.

This attachment contains an overall estimate of the costs and benefits of the *San Marcos Creek Floodway Improvement Project* by providing a summary of the cost benefit information from Attachments 7, 8, and 9.

### Costs and Benefits Summary

The benefits that are anticipated to result from implementation of this proposal are summarized below in Table 10-1, and the cost-benefit overview is summarized in Table 10-2.

**Table 10-1: Benefits Summary**

Type of Benefit	Assessment Level	Beneficiaries
<b>Flood Damage Reduction Benefits</b>		
Avoided Flood Damages	Monetized	Local
<b>Water Supply Benefits</b>		
Avoided Imported Water Purchases	Monetized	Local and Regional
Increased Viability of Local Orchard Industry	Qualitative	Local and Regional
Water Supply Reliability	Qualitative	Local and Regional
<b>Water Quality and Other Benefits</b>		
Avoided Sediment and Water Quality Treatment Costs	Monetized	Local and Regional
Avoided City Maintenance Costs	Monetized	Local
Habitat/Creek Restoration	Qualitative	Local and Regional
Increased Recreation Opportunities	Qualitative	Local and Regional

**Table 10-2: Benefit-Cost Analysis Overview**

	<b>Present Value (\$2009)</b>
<b>Costs – Total Capital and O&amp;M</b>	<b>\$12,744,409</b>
<b>Monetizable Benefits</b>	<b>\$14,744,868</b>
Avoided Flood Damages	\$11,004,625
Avoided Imported Water Purchases	\$1,960,016
Avoided Sediment and Water Quality Treatment Costs	\$829,590
Avoided City Maintenance Costs	\$950,637
<b>Qualitative Benefits</b>	<b><u>Qualitative Indicator*</u></b>
Increased Viability of Local Orchard Industry	++
Water Supply Reliability	+
Habitat/Creek Restoration	+
Increased Recreation Opportunities	+

\* Magnitude of effect on net benefits

+/- (negligible or unknown); + (moderate positive); ++ (significant positive); - (moderate negative); -- (significant negative)

Table 10-3 provides an overview of the costs and benefits of the *San Marcos Creek Floodway Improvement Project*. As described in Attachments 7, 8, and 9, the proposed project would result in monetized flood damage reduction, water supply, and water quality and other benefits. The overall benefit-cost ratio for the *San Marcos Creek Floodway Improvement Project* is 1.16.

**Table 10-3: Costs and Benefits Summary**

<b>Table 20 – Proposal Project Costs and Benefits Summary for Proposition 1E</b>							
<b>Project</b>	<b>Agency</b>	<b>Total Present Value Project Costs</b>	<b>Total Present Value Project Benefits</b>				<b>Benefit/Cost Ratio</b>
			<b>Flood Damage Reduction</b>	<b>Water Supply</b>	<b>Water Quality and Other</b>	<b>Total</b>	
<b>(a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>	<b>(e)</b>	<b>(f)</b>	<b>(g)</b>	<b>(h)</b>
<i>San Marcos Creek Floodway Improvement Project</i>	City of San Marcos	\$12,744,409	\$11,004,625	\$1,960,016	\$1,780,227	\$14,744,868	1.16
<b>TOTAL</b>		<b>\$12,744,409</b>	<b>\$11,004,625</b>	<b>\$1,960,016</b>	<b>\$1,780,227</b>	<b>\$14,744,868</b>	<b>1.16</b>